UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,982	12/28/2005	Emmanuel Bourgeois	Serie 6335	3545

40582 7590 12/10/2008

AIR LIQUIDE
Intellectual Property
2700 POST OAK BOULEVARD, SUITE 1800
HOUSTON, TX 77056

EXAMINER	
NIESZ, JASON KAROL	
ART UNIT	PAPER NUMBER
3751	

MAIL DATE	DELIVERY MODE
12/10/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/562,982	BOURGEOIS ET AL.	
	Examiner	Art Unit	
	JASON K. NIESZ	3751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 October 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *5-10 and 12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *5-10 and 12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 December 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 9 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The specific limitation of “three predetermined pressure sub-ranges" is already present in claim 5.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 5 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specific limitation "a predetermined pressure range comprising three predetermined pressure sub-ranges" is not supported in the original disclosure. On Page 3, lines 12-21 the instant specification provides for three different possible ranges of operation. However there is no support for splitting a single larger range into three sub-ranges, only for adopting, prior to operation, the predetermined pressure range most suitable for the container to be filled.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meyer (US Patent 6,216,719) in view of Poulsen (US Patent 4,657,055).

In Re claims 5, 9 and 11 with reference to Figure 2 Meyer discloses a system for the transfer of pressurized fluids comprising a pressurized fluid supply pump (56) (Column 4, lines 39-41) that can be connected via a filling hose (72) (Column 4, lines 55-57) to a fluid inlet (78) on a storage tank (74) (Column 4, lines 61-63). Meyer also discloses a pump control unit (92) (Column 5, lines 58-60) coupled to a pressure sensor (90) (Column 5, lines 4-5) that can be connected to a pressure tapping (Column 4, line 66- Column 5, line 1) located at a hose fitting adjacent to the storage tank. The examiner notes that, an opening therethrough (sic) to which will be attached a small quarter inch pressure hose," constitutes a pressure tapping. The examiner further notes that a pressure tapping located at the hose coupling (86) on the tank (74) is functionally equivalent to a pressure tapping on the storage tank. Meyer also discloses a secondary hose (88) connecting the hose tapping to the pressure sensor. Finally, Meyer discloses programmable logic (Column 8, lines 47-57) which opens and closes the supply pipe for the fluid.

The examiner notes that closing the supply pipe in the system effectively does not allow the pump to operate, i.e. to dispense fluid.

Meyer doesn't disclose the use of the programmable logic to restrict the pump from activating unless the pressure measured is within a predetermined range. Meyer also doesn't disclose multiple pressure sub-ranges.

Poulsen discloses a cylinder filling system in which the filling operation is suspended unless the pressure in the receiving tank lies within a predetermined set of limits (Column 10, lines 9-26). Poulsen further discloses a number of possible pressure ranges for the filling operation, depending on type of container selected (Column 14, lines 13-20).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the programmable logic of the Meyer apparatus to permit the filling operation to take place only when the tank pressure lies within a predetermined range, as taught by the Poulsen reference. Furthermore, it would have been obvious to allow the user to select from a number of predetermined sub-ranges, also as taught by Poulsen, in order to customize the filling operation to the receiving tank. The benefits of filling a tank only when the internal pressure lies within a certain range are well known in the art: tanks filled to a point above their maximum pressure pose a danger of rupture and explosion, while an unusually low internal pressure can indicate several different undesirable filling conditions including a tank leak and a faulty pressure sensor. Finally, it would have been obvious to one of ordinary skill in the art

the controlling operation taught by Poulsen could be exercised through the regulation of a supply valve and/or the operation of the supply pump, depending on the filling setup.

Statements of intended use have been considered and determined not to limit the claimed invention beyond the scope of the prior art. The programmable logic of the Meyer in view of Poulsen apparatus could perform steps i, ii and iii from claim 5 as well as the method step described in claim 10.

In Re claim 10 Meyer in view of Poulsen discloses the claimed invention except for sub-ranges from 0.5-5 bar, 6-15 bar and 16-35 bar. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use these values for the sub-ranges, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller,* 105 USPQ 233. Please note that in the instant application, page 3, lines 12-21, applicant has not disclosed any criticality for the claimed limitations which would be beyond the scope of routine experimentation by one of ordinary skill in the art.

In Re claim 8 Meyer discloses a gas from the air (Column 1, line 18).

In Re claim 12 the examiner notes that the secondary hose from Meyer is not disclosed as having any sort of valve or seal at its end, and therefore, it inherently cannot be kept under pressure when it is not connected to the pressure tapping.

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Meyer in view of Poulsen in further view of Berrettini et al. (US Patent 4,805,672).

In Re claim 6 Meyer in view of Poulsen as applied to claim 5 above discloses all the limitations, but doesn't disclose the secondary hose connected selectively to the pressure tapping. In Figure 1 Berrettini discloses a filling system in which a secondary hose (24) used to measure pressure is selectively connected (20) to a pressure tapping on a receiver tank (Column 3, lines 7-10 and 17). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Meyer apparatus by selectively connecting the secondary hose to the pressure tapping, in order to allow the hose to be easily disconnected for repair or replacement activities.

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Meyer in view of Poulsen in further view of Cowen (US Patent 5,062,417).

In Re claim 7 Meyer in view of Poulsen as applied to claim 5 above discloses all the limitations, but doesn't disclose a manually-disengagable (sic) non-return valve device. Cowen discloses an inline check valve that can be manually disengaged (Column 2, lines 21-25). The examiner notes that those of ordinary skill in the art commonly refer to a non-return valve as a check valve. Therefore, it would have been obvious to one of ordinary skill in the art to modify the fill hose of Meyer to include the manually-disengagable check valve from Cowen, in order to regulate the movement of fluid during transfer and then remove excess fluid from the hose once transfer is complete.

Response to Arguments

7. Applicant's arguments filed 08/11/2008 have been fully considered but they are not persuasive. The pressure sensor in claim 1 is not positively recited as being on the

tank, merely that it can be connected to a pressure tapping of the storage tank. Furthermore, the Emmer reference cited by the applicant discloses a pressure sensor on a fill line, not a pressure sensor on a coupling directly attached to a tank. The applicant's argument regarding claim 6 is in error because it is not necessary that Berrettini teach the specific limits of the programmable logic, that limitation is met by the Poulsen reference. Furthermore, as cited above, Poulsen does disclose a plurality of sub-ranges and the operation of the filling within one (Claim 1).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON K. NIESZ whose telephone number is (571)270-3920. The examiner can normally be reached on mon-fri 9-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Huson can be reached on (571) 272-4887. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jason K Niesz
Examiner
Art Unit 3751

/Gregory L. Huson/
Supervisory Patent Examiner, Art Unit 3751